

In the Claims

Please replace all prior versions, and listings, of claims in the application with the following list of claims:

1. (Previously Presented) A composition comprising an immunostimulatory nucleic acid comprising the nucleotide sequence of SEQ ID NO:1, wherein the immunostimulatory nucleic acid has a nucleotide backbone comprising at least one phosphorothioate modification.
2. (Previously Presented) The composition of claim 1, wherein the immunostimulatory nucleic acid consists of the nucleotide sequence of SEQ ID NO:1.
3. (Previously Presented) The composition of claim 1, further comprising an antigen, wherein the antigen is not a nucleic acid vector encoding the antigen.
4. (Original) The composition of claim 3, wherein the antigen is selected from the group consisting of a microbial antigen, a cancer antigen, and an allergen.
5. (Original) The composition of claim 4, wherein the microbial antigen is selected from the group consisting of a bacterial antigen, a viral antigen, a fungal antigen and a parasitic antigen.
- 6-7. (Cancelled)
8. (Original) The composition of claim 3, wherein the antigen is a peptide antigen.
9. (Original) The composition of claim 1, further comprising an adjuvant.
10. (Original) The composition of claim 9, wherein the adjuvant is a mucosal adjuvant.

11. (Original) The composition of claim 1, further comprising a cytokine.

12. (Previously Presented) The composition of claim 1, further comprising a therapeutic agent selected from the group consisting of an anti-microbial agent, an anti-cancer agent, and an allergy/asthma medicament.

13. (Original) The composition of claim 12, wherein the anti-microbial agent is selected from the group consisting of an anti-bacterial agent, an anti-viral agent, an anti-fungal agent, and an anti-parasite agent.

14. (Original) The composition of claim 12, wherein the anti-cancer agent is selected from the group consisting of a chemotherapeutic agent, a cancer vaccine, and an immunotherapeutic agent.

15. (Original) The composition of claim 12, wherein the allergy/asthma medicament is selected from the group consisting of PDE-4 inhibitor, bronchodilator/beta-2 agonist, K⁺ channel opener, VLA-4 antagonist, neurokinin antagonist, TXA2 synthesis inhibitor, xanthanine, arachidonic acid antagonist, 5 lipoxygenase inhibitor, thromboxin A2 receptor antagonist, thromboxane A2 antagonist, inhibitor of 5-lipox activation protein, and protease inhibitor.

16-18. (Cancelled)

19. (Previously Presented) The composition of claim 1, wherein the nucleotide backbone is chimeric.

20. (Previously Presented) The composition of claim 1, wherein the nucleotide backbone is entirely modified.

21. (Original) The composition of claim 1, further comprising a pharmaceutically acceptable carrier.

22-27. (Cancelled)

28. (Original) The composition of claim 1, wherein the immunostimulatory nucleic acid is formulated as a nutritional supplement.

29. (Original) The composition of claim 28, wherein the nutritional supplement is formulated as a capsule, a pill, or a sublingual tablet.

30. (Original) The composition of claim 1, wherein the immunostimulatory nucleic acid is formulated for local administration.

31. (Original) The composition of claim 1, wherein the immunostimulatory nucleic acid is formulated for parenteral administration.

32. (Original) The composition of claim 1, wherein the immunostimulatory nucleic acid is formulated in a sustained release device.

33. (Original) The composition of claim 1, wherein the immunostimulatory nucleic acid is formulated for delivery to a mucosal surface.

34-43. (Cancelled)

44. (Original) The composition of claim 32, wherein the sustained release device is a microparticle.

45. (Cancelled)

46. (Previously Presented) A method for stimulating an immune response in a subject in need thereof comprising

administering to a subject the immunostimulatory nucleic acid of claim 1, in an amount effective to stimulate an immune response, wherein the subject has or is at risk of developing a cancer.

47. (Original) The method of claim 46, wherein the subject has or is at risk of developing an infection.

48-53. (Cancelled)

54. (Original) The method of claim 46, further comprising administering an antigen to the subject.

55. (Previously Presented) The method of claim 54, wherein the antigen is selected from the group consisting of a microbial antigen, a cancer antigen, and a self antigen.

56-57. (Cancelled)

58. (Original) The method of claim 46, wherein the immune response is an antigen-specific immune response.

59-63. (Cancelled)

64. (Original) The method of claim 46, further comprising administering to the subject a second therapeutic agent.

65-72. (Cancelled)

73. (Currently Amended) The method of claim 71-46, wherein the immunostimulatory nucleic acid has a nucleotide backbone that is chimeric.

74. (Currently Amended) The method of claim 71 46, wherein the immunostimulatory nucleic acid has a nucleotide backbone that is entirely modified.

75-76. (Cancelled)

77. (Original) The method of claim 46, wherein the immunostimulatory nucleic acid is administered orally.

78. (Original) The method of claim 46, wherein the immunostimulatory nucleic acid is administered locally.

79. (Original) The method of claim 46, wherein the immunostimulatory nucleic acid is administered parenterally.

80. (Original) The method of claim 46, wherein the immunostimulatory nucleic acid is administered in a sustained release device.

81. (Original) The method of claim 46, wherein the immunostimulatory nucleic acid is administered to a mucosal surface.

82-83. (Cancelled)

84. (Original) The method of claim 81, wherein the mucosal surface is selected from the group consisting of an oral, nasal, rectal, vaginal, and ocular surface.

85. (Original) The method of claim 46, further comprising isolating an immune cell from the subject, contacting the immune cell with an effective amount to activate the immune cell of the immunostimulatory nucleic acid and re-administering the activated immune cell to the subject.

86-88. (Cancelled)

89. (Original) The method of claim 46, wherein the subject is a human.

90. (Original) The method of claim 46, wherein the subject is selected from the group consisting of a dog, cat, horse, cow, pig, sheep, goat, chicken, monkey and fish.

91-94. (Cancelled)

95. (Previously Presented) The method of claim 46, wherein the cancer is selected from the group consisting of biliary tract cancer; bone cancer; brain and CNS cancer; breast cancer; cervical cancer; choriocarcinoma; colon cancer; connective tissue cancer; endometrial cancer; esophageal cancer; eye cancer; gastric cancer; Hodgkin's lymphoma; intraepithelial neoplasms; larynx cancer; lymphomas; liver cancer; lung cancer; melanoma; neuroblastomas; oral cavity cancer; ovarian cancer; pancreas cancer; prostate cancer; rectal cancer; sarcomas; skin cancer; testicular cancer; thyroid cancer; and renal cancer.

96. (Previously Presented) The method of claim 46, further comprising administering an antibody specific for a cell surface antigen, and wherein the immune response results in antibody dependent cellular cytotoxicity (ADCC).

97. (Cancelled)

98. (Previously Presented) A method for inducing an innate immune response, comprising

administering to the subject the immunostimulatory nucleic acid of claim 1 in an amount effective for activating an innate immune response.

99. (Cancelled)

100. (Currently Amended) A composition comprising an immunostimulatory nucleic acid comprising the nucleotide sequence of SEQ ID NO:1, wherein the immunostimulatory nucleic acid is 24-100 nucleotides in length and comprises a CpG motif that is unmethylated.

101. (Previously Presented) A composition comprising an immunostimulatory nucleic acid comprising the nucleotide sequence of SEQ ID NO:1, and an antigen, wherein the antigen is not a nucleic acid vector encoding the antigen.

102. (Previously Presented) The composition of claim 100, wherein the immunostimulatory nucleic acid is single stranded.

103. (Previously Presented) The composition of claim 100, wherein the immunostimulatory nucleic acid consists of the nucleotide sequence of SEQ ID NO:1.

104. (Previously Presented) The composition of claim 100, wherein the immunostimulatory nucleic acid has a nucleotide backbone comprising at least one modification.

105. (Previously Presented) The composition of claim 100, further comprising an antigen, wherein the antigen is not a nucleic acid vector encoding the antigen.

106. (Previously Presented) The method of claim 95, wherein the lung cancer is small cell lung cancer.

107. (Previously Presented) The method of claim 95, wherein the lung cancer is non-small cell lung cancer.

108. (New) The method of claim 100, wherein the immunostimulatory nucleic acid has a nucleotide backbone comprising at least one phosphorothioate modification.